Service Manual for L1 and L2

# Nokia Lumia 510

RM-889 RM-898

## **Key features**

- Windows Phone 7.5 / 7.8 OS
- Large 4" display

- 5 Megapixel camera
  800 MHz Snapdragon processor
  256 MB RAM, 4GB internal storage + SkyDrive

Check the repair policy before performing any mechanical repair on Service Level 1&2!







## **Disassembly steps**



## **Disassembly video**



**Assembly hints** 



**Assembly video** 



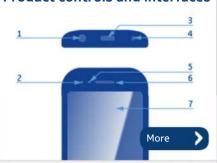
**Solder components** 



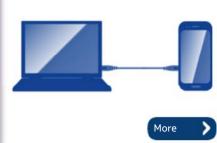
**Service devices** 



**Product controls and interfaces** 



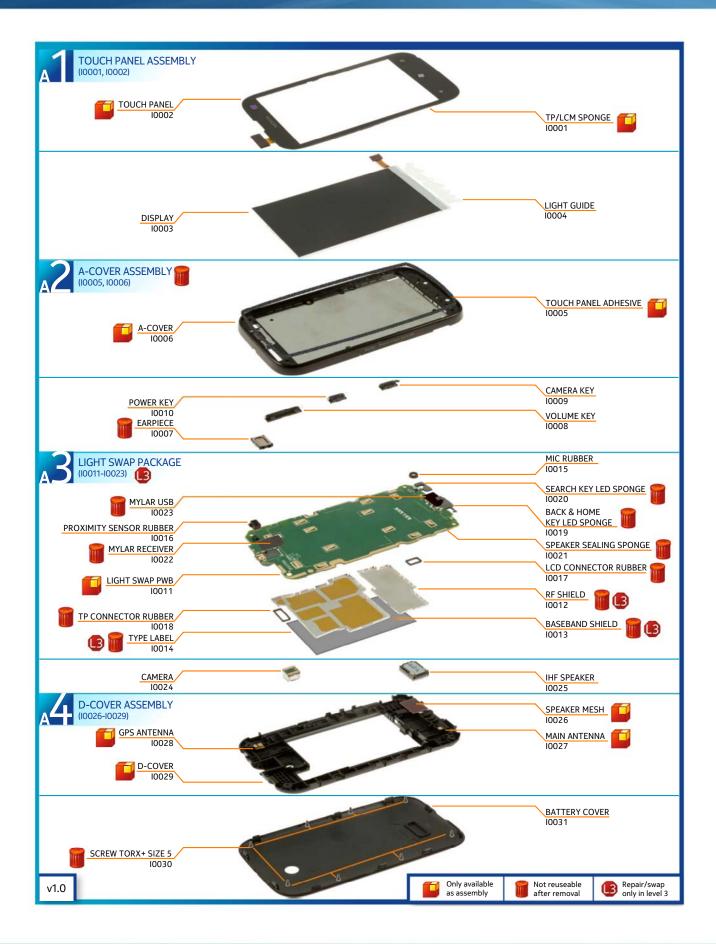
**Service concept** 



**Phone reset** 



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For disassembling you need the Nokia Standard toolkit version 2. You will also need the camera removal tool SS-287.



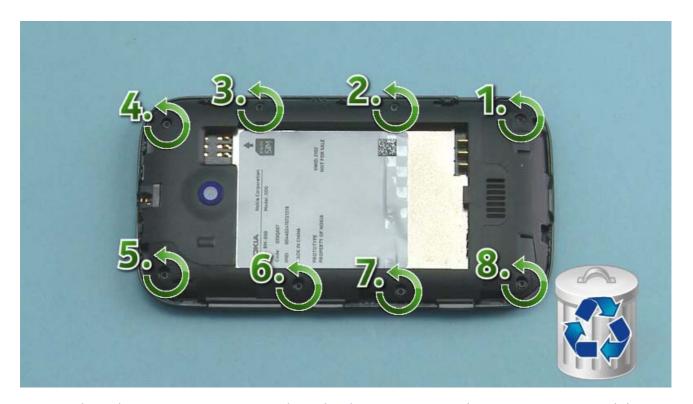
Protect the TOUCH SCREEN with protective film.



Use the finger groove to release the  $\ensuremath{\mathsf{BATTERY}}$  COVER.



Remove the BATTERY COVER. If there is a battery inside, remove it also.



Unscrew the eight TORX+ size 5 screws in the order shown. Do not use the screws again. Discard them.



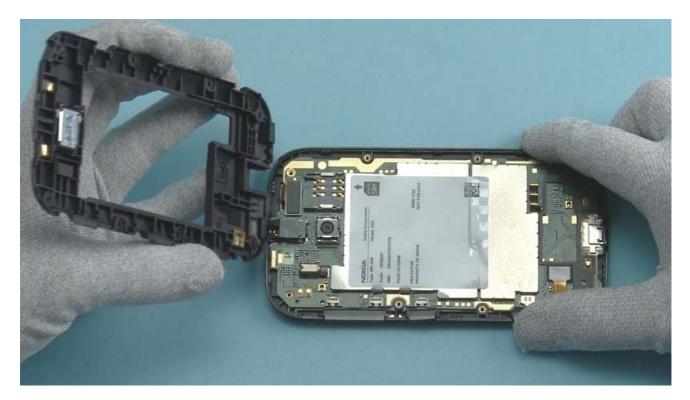
Use the srt-6 to release these two snaps.



Release also these two snaps on the the other side of the device.



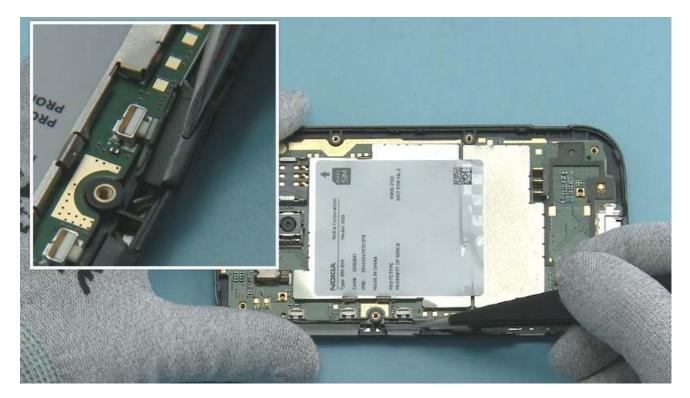
Lift up the D-COVER ASSEMBLY bottom end first.



Remove the D-COVER.



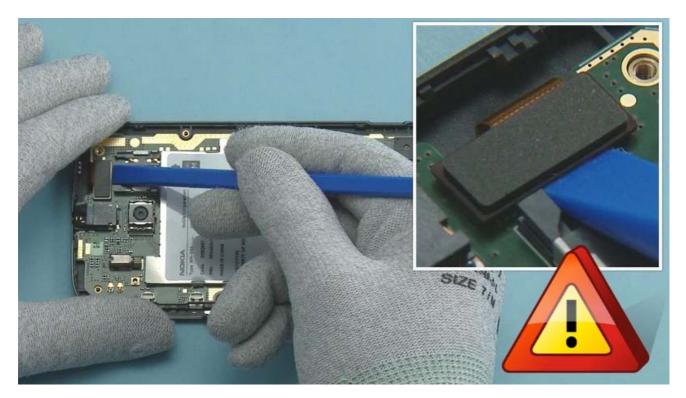
Use tweezers to remove the CAMERA KEY.



Remove the POWER KEY.



Remove also the VOLUME KEY.



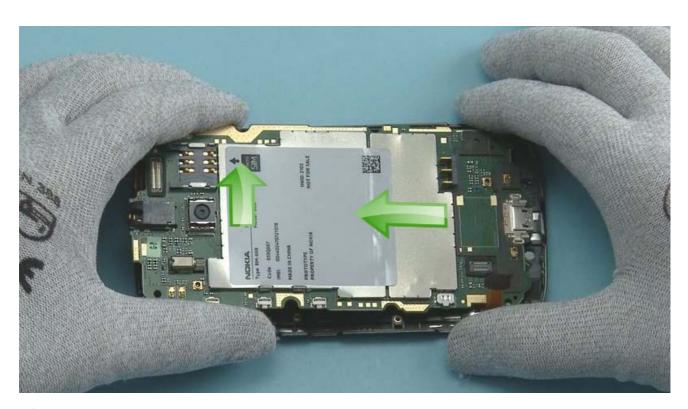
Disconnect the touch connector with the SS-93. Be careful not to damage the rubber around the connector or any components nearby.



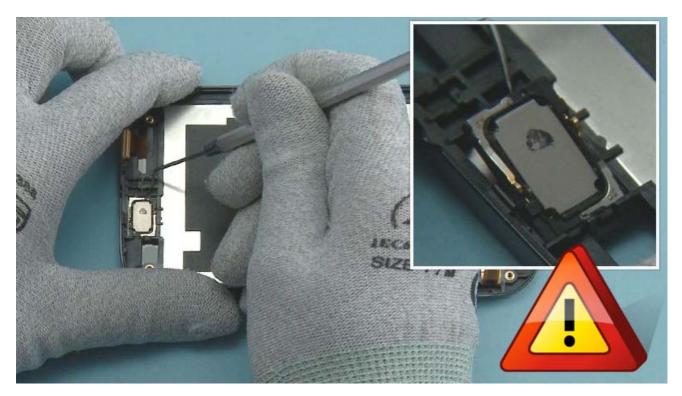
Disconnect the DISPLAY connector with the SS-93. Be careful not to damage the rubber around the connector or any components nearby.



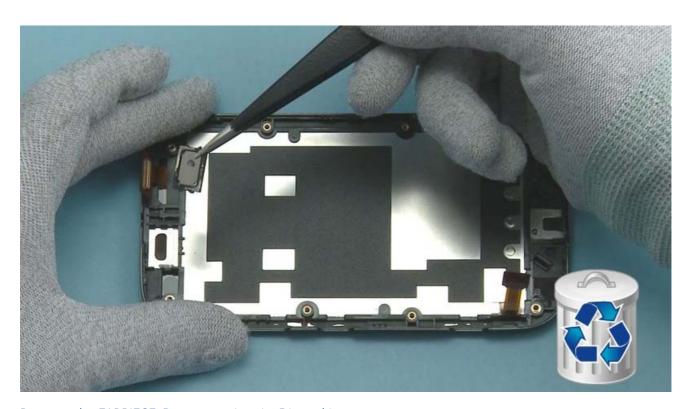
Release the clip holding the ENGINE BOARD with the SS-93.



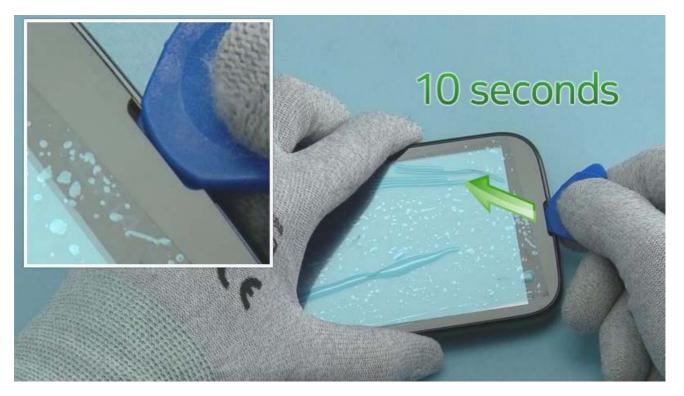
Lift up The ENGINE BOARD as shown.



Carefully release the EARPIECE with the dental tool. Be careful not to injure yourself with the sharp end of the dental tool.



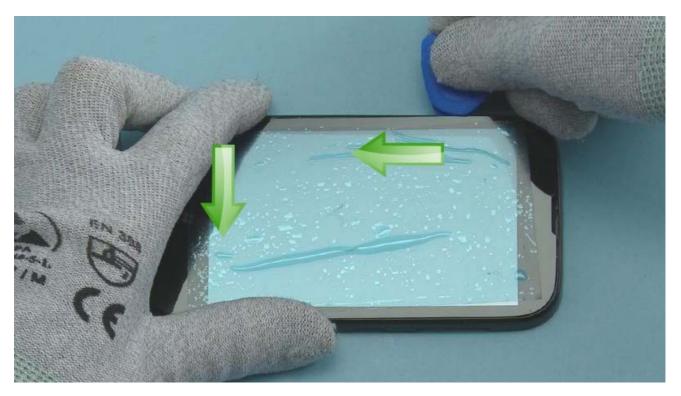
Remove the EARPIECE. Do not use it agin. Discard it.



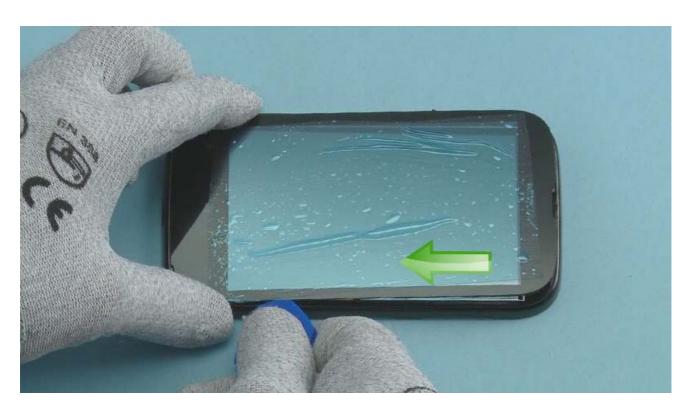
Insert the SRT-6 into the earpiece hole. Carefully lift up the TOUCH PANEL for 10 seconds to loosen the adhesive.



Continue detaching the TOUCH PANEL by sliding the SRT-6 to the right. Then slide the SRT-6 to the left. Be careful not to damage the flex underneath.



Continue by releasing the TOUCH PANEL side and the bottom end with the SRT-6.



Release also the other side with the SRT-6.



Use tweezers to pull the connector flex through the A-COVER hole.



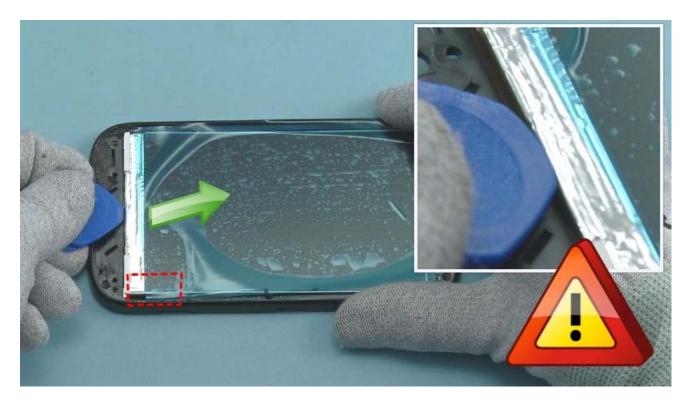
Separate the A-COVER and the TOUCH PANEL.



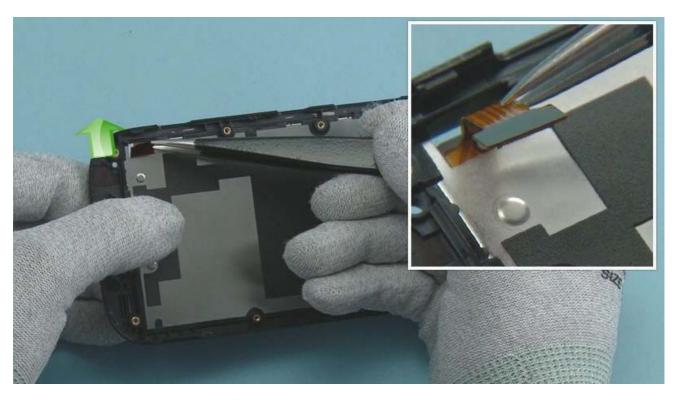
Protect the DISPLAY with protective film.



Remove the LIGHT GUIDE with tweezers.



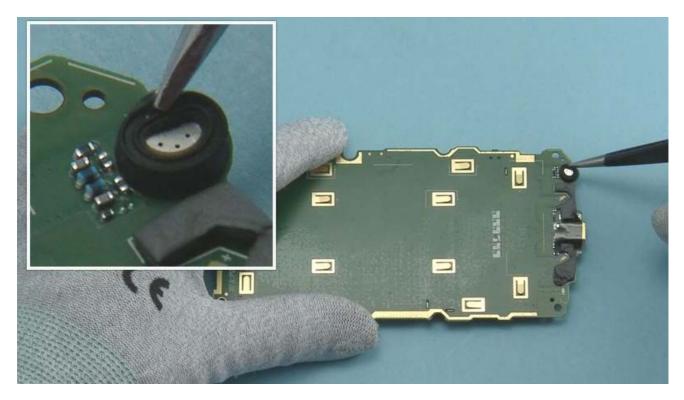
Use the SRT-6 to release the DISPLAY. Be careful not to damage the flex underneath.



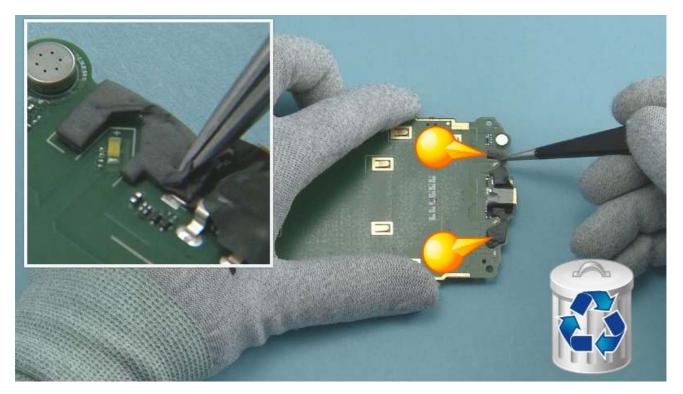
Use tweezers to put the connector flex through the A-COVER hole.



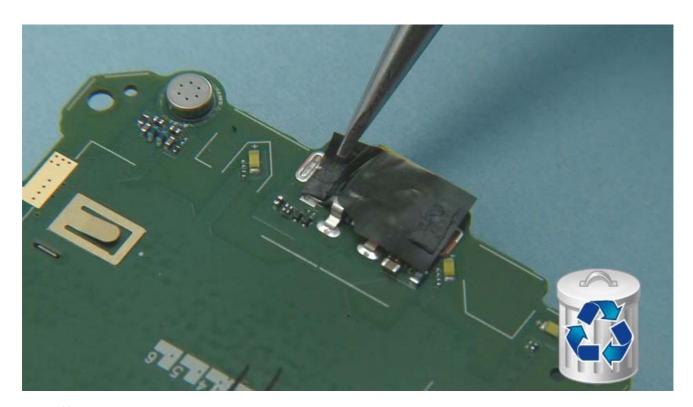
Separate the A-COVER and the DISPLAY. Note that the A-COVER can not be used again.



Remove the MIC RUBBER with tweezers.



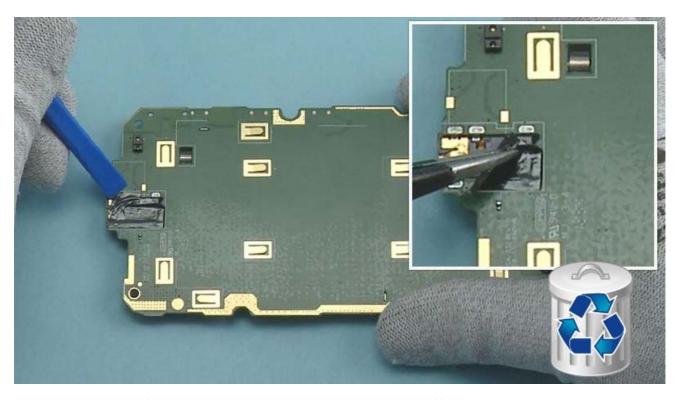
Remove the SEARCH KEY and the BACK & HOME KEY LED SPONGEs with tweezers. Do not use them again. Discard them.



Peel off the MYLAR USB with tweezers. It is not reusable. Discard it.



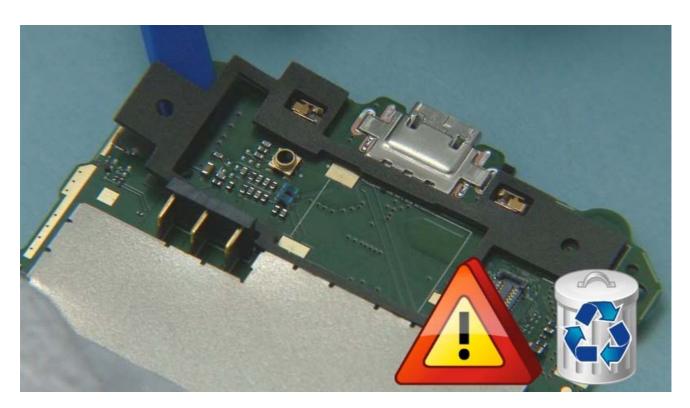
Remove the PROXIMITY SENSOR RUBBER with tweezers.



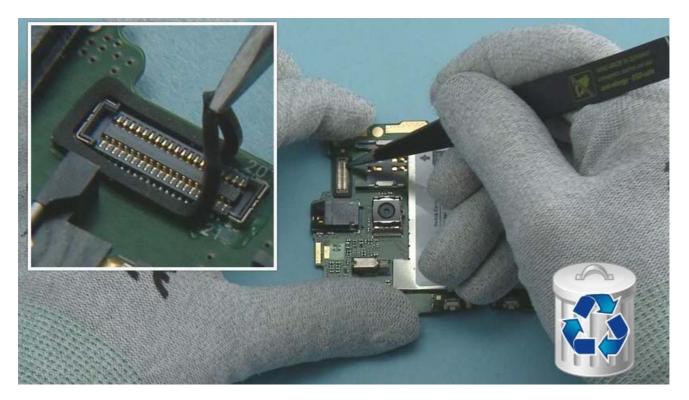
Release one corner of the MYLAR RECEIVER with the SS-93. Peel it off with tweezers and discard it.



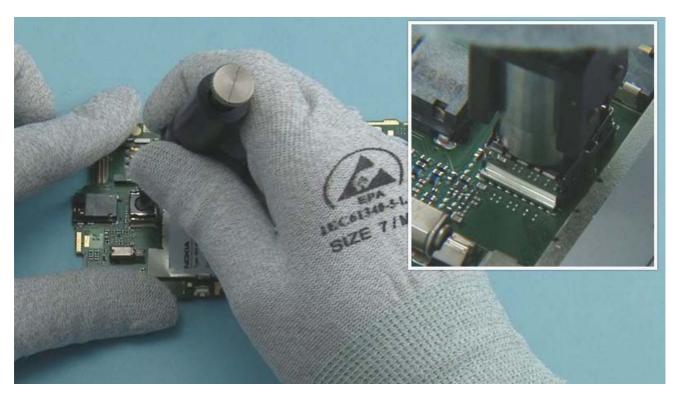
Remove the LCD CONNECTOR RUBBER with tweezers. Do not use it again. Discard it.



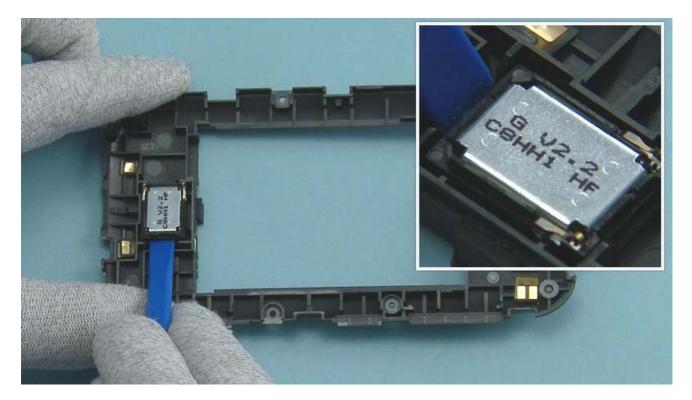
Release the SPEAKER SEALING SPONGE with the SS-93. Remove it with tweezers. Do not use it again. Be careful not to damage the components on the ENGINE BOARD.



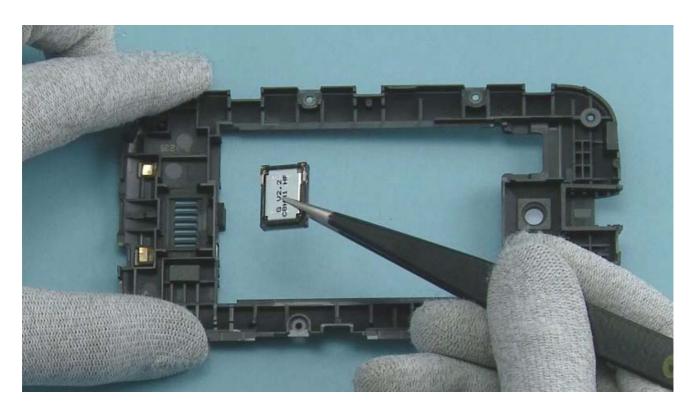
Remove the TOUCH PANEL CONNECTOR RUBBER with tweezers. Do not use it again. Discard it.



Use the camera removal tool SS-287 to detach the CAMERA.



Lift up the IHF SPEAKER with the SS-93.



Remove the IHF SPEAKER with tweezers.

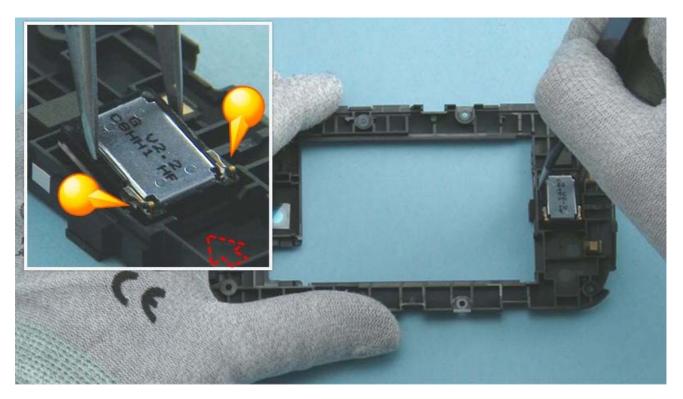


The Nokia Lumia 510 disassembly procedure is complete.

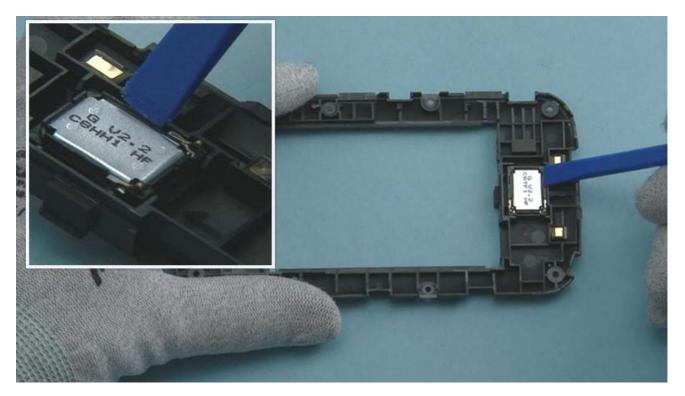
-END OF DISASSEMBLY-



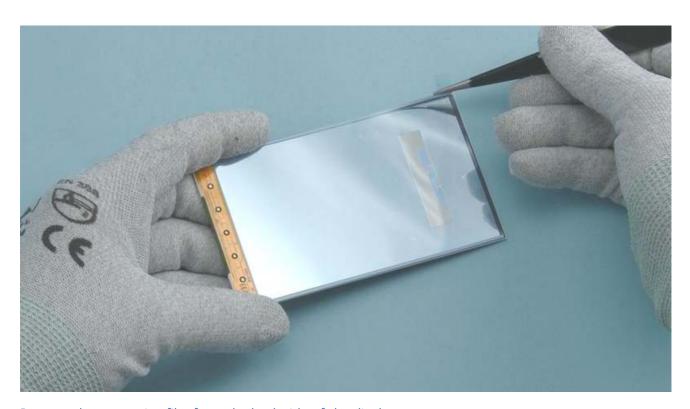
For assembling you need the Nokia Standard toolkit version 2.



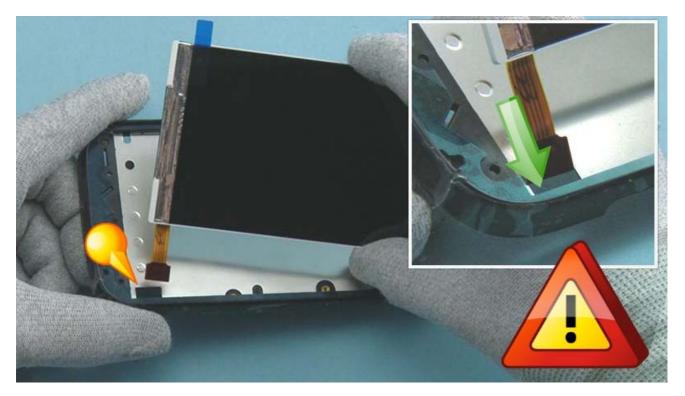
Place the IHF SPEAKER into the D-COVER. Make sure the IHF SPEAKER is aligned correctly. The pins should point towards the cavity with arrow on it.



Press the IHF SPEAKER gently from the black plastic parts to activate the adhesive. Make sure not to touch the center part of the IHF SPEAKER.



Remove the protective film from the back side of the display.



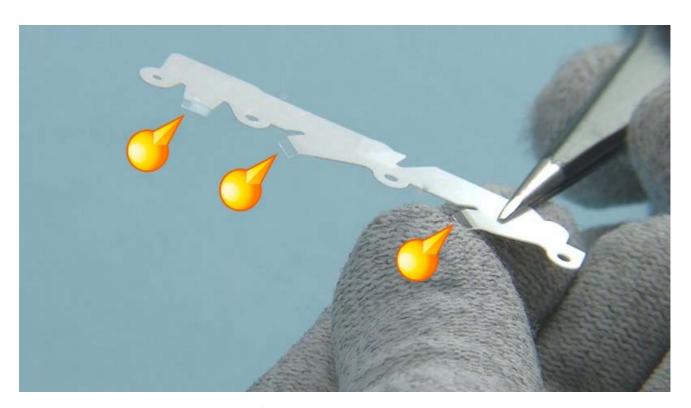
Carefully put the display flex through the hole on the A-cover.



Place the DISPLAY to the A-COVER.



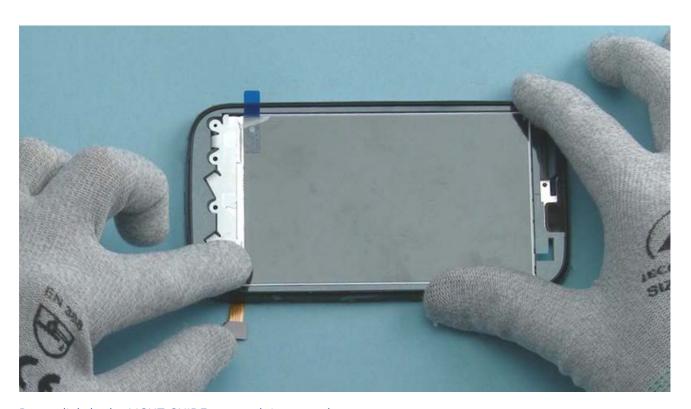
Use tweezers to pick up a new LIGHT GUIDE.



Bend the transparent appendices with fingers.



Insert the bent parts into the holes on A-COVER. While aligning the LIGHT GUIDE use the round guidings to align it correctly.



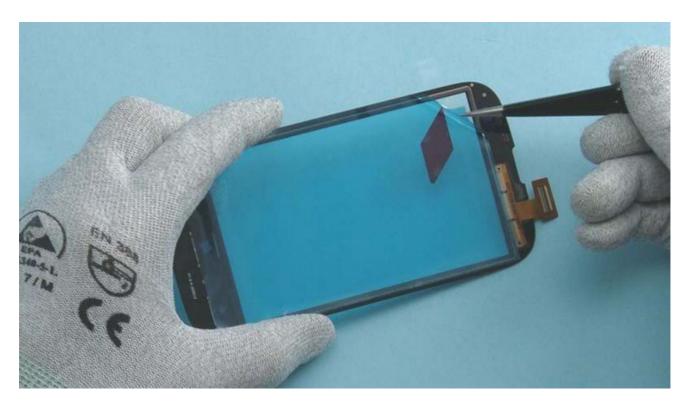
Press slightly the LIGHT GUIDE to attach it correctly.



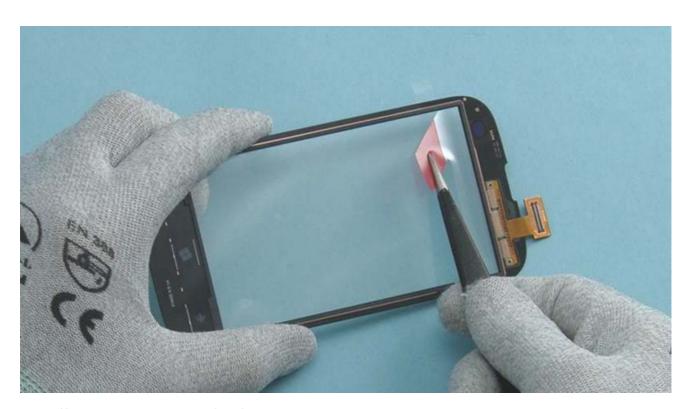
Peel off the protective film from the A-COVER.



Remove the protective film from the display.



Peel off the first protective film from the TOUCH PANEL.



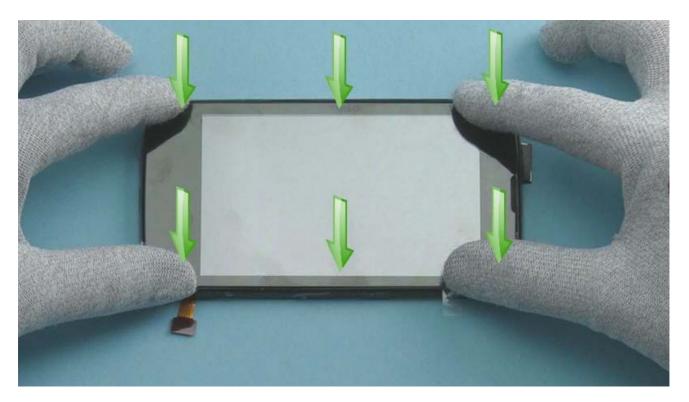
Peel off the second protective film from the TOUCH PANEL.



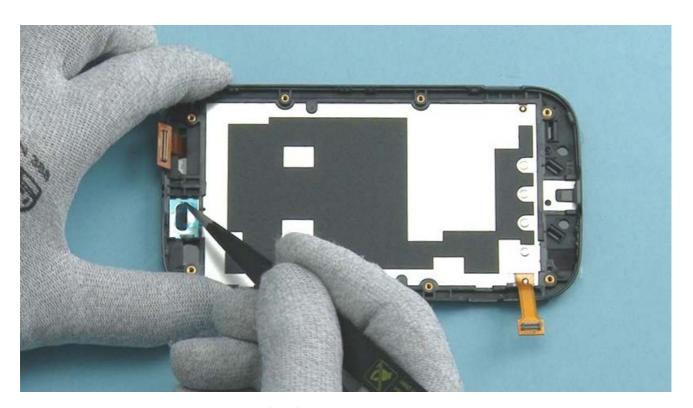
Carefully put the touch panel flex through the hole on the A-cover.



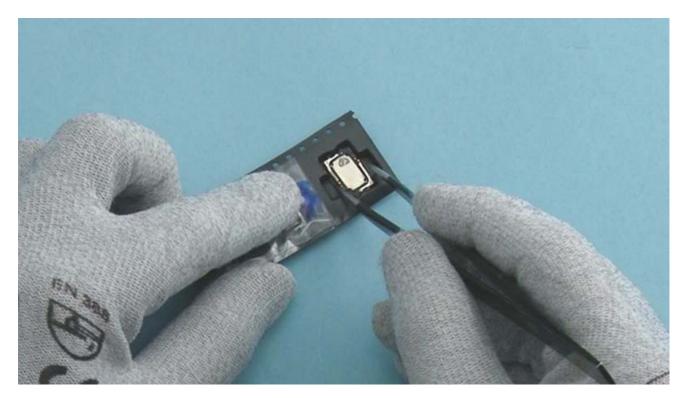
Place the top side of the TOUCH PANEL to the A-COVER.



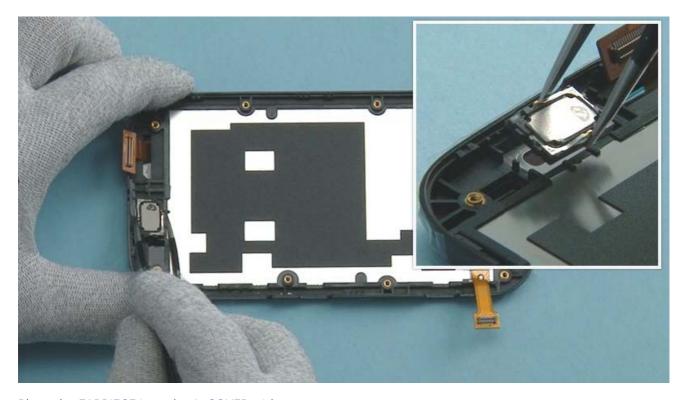
Put down the TOUCH PANEL and press the edges to activate the adhesive.



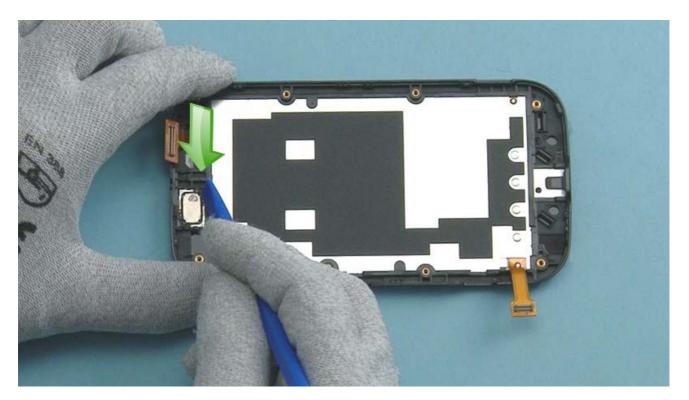
Use tweezers to remove the protective film from the EARPIECE slot.



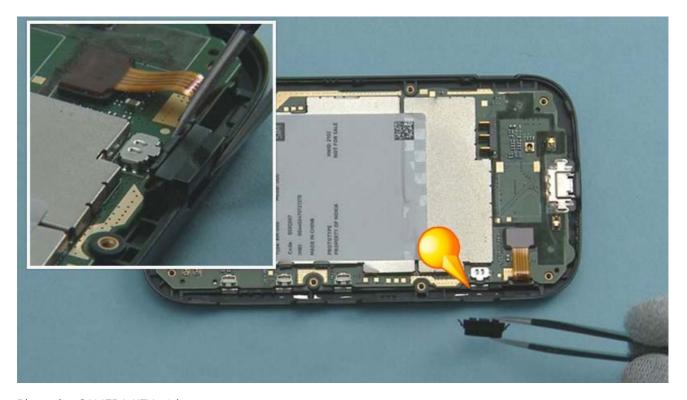
Open the EARPIECE package. Use tweezers to remove the EARPIECE from the package. Make sure not to touch the shown center part of the EARPIECE.



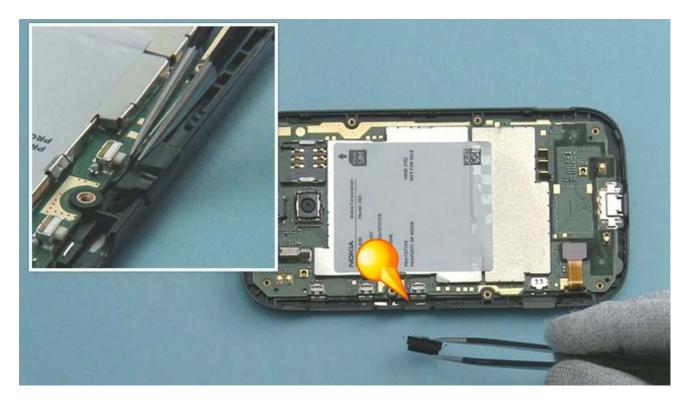
Place the EARPIECE into the A-COVER with tweezers.



Press the EARPIECE gently from the black plastic parts to activate the adhesive. Make sure not to touch the center part of the EARPIECE.



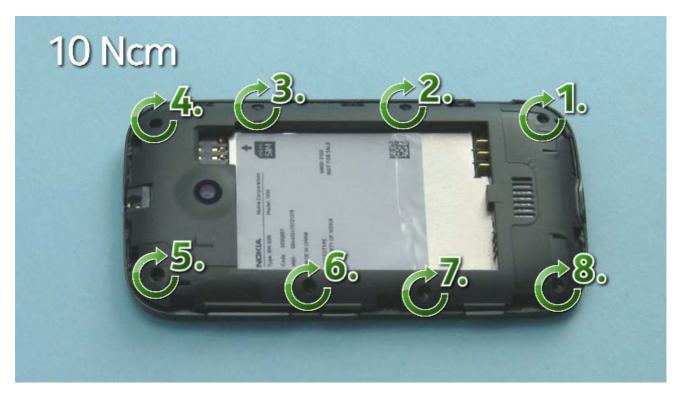
Place the CAMERA KEY with tweezers.



Place the POWER KEY with tweezers.



Place the VOLUME KEY with tweezers.



Fasten the eight TORX+ size 5 screws to the torque of 10 Ncm.

-END OF ASSEMBLY HINTS-

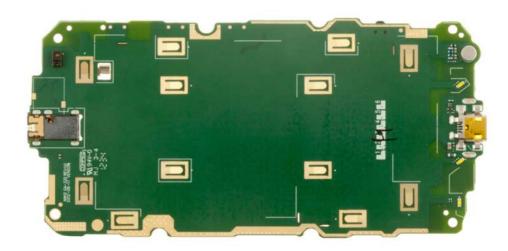
Service Manual Level 1 and 2 Nokia Lumia 510 RM-889, RM-898 Version 1.0

# NOKIA LUMIA 510

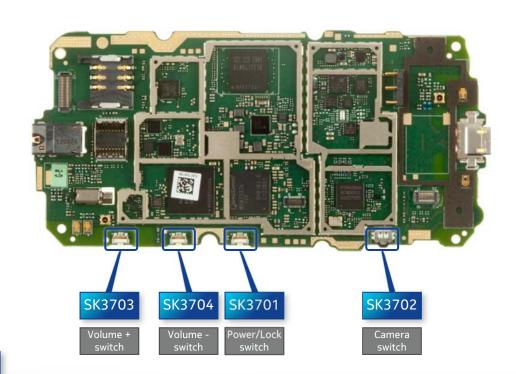
Solder components

Nokia Care Academy

# TOP



# BOTTOM



v1.0



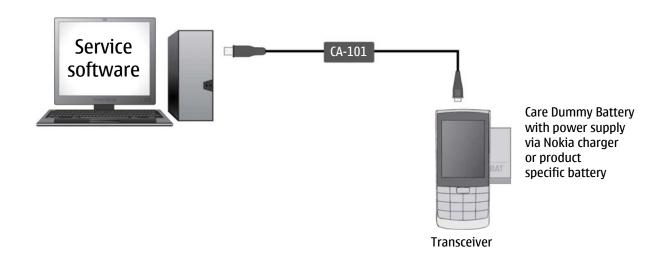


- 1 Nokia AV 3.5 mm connector
- 2 Earpiece
- 3 Proximity & Ambient light sensor
- 4 Touch screen
- 5 Back key
- 6 Start key
- 7 Search key
- 8 Microphone
- 9 Micro USB connector
- 10 Camera
- 11 Volume keys
- 12 Lock/Power key
- 13 Camera key
- 14 Battery cover release notch
- 15 Loudspeaker



v1.0

## Flashing concept



## On Device Diagnostics Tool (ODDT)

The ODDT is an app for performing basic device hardware troubleshooting at Nokia Care Points. The ODDT is not visible on retail phones and it is intended only for use by trained personnel at Nokia Care Points.

## To install the ODDT:

- 1. Enter ##634# on the on-screen keypad
- 2. Diagnostics app appears in Apps list

#### To remove the ODDT:

- 1. Tap and hold Diagnostics
- 2. Tap uninstall

Note: always uninstall the tool before returning the phone to the consumer!

For more information on using the ODDT, see KICS TR2816.



## Hardware reset

If the phone hardware is jammed, you should first recommend that the consumer performs a hardware reset. The hardware reset does not reset the Windows Live ID or remove any consumer data.

To perform a hardware reset remove the battery and reinsert it. Boot up the phone normally.



## Software / operating system (OS) reset

The software / operating system (OS) reset returns the phone to its out-of-the-box state. Note that this procedure erases all consumer data! Always first try to perform a hardware reset.

## **Option 1: About menu**

- Use this option if the consumer knows the lock code
- This option warns the consumer about data loss!
- Tap Settings > About > reset your phone



## **Option 2: Hardware key combination**

- Use this option if the phone is locked and the consumer does not know the code
- Note: no warning about data loss!
- Do not advertise this feature to consumers!

Follow next steps to perform OS reset with phone keys.

Step 1
Make sure the phone is turned Off.
Press and hold the Volume down,
Power and Camera keys



**Step 2**When the phone vibrates release the **Power** key



**Step 3**Keep holding the **Volume down**and **Camera** keys for another 5
seconds and then release the keys



**Step 4**The phone will reset and boot up automatically



## Version history

Version	Date	Description
1.0	23.10.2012	First published version